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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,263	01/26/2004	Richard E. Jesmonth	21384.0101	6446

41434 7590 12/12/2006

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EXAMINER

SAINT SURIN, JACQUES M

ART UNIT PAPER NUMBER

2856

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/763,263	JESMONTH, RICHARD E.	
	Examiner	Art Unit	
	Jacques M. Saint-Surin	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2004 and 26 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-13 and 28-33 is/are allowed.
- 6) ☒ Claim(s) 14-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/26/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 14-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Herron et al. (US 2004/0125916 A1) or Acker et al. (US Patent 6,618,612 B1).

Regarding claims 14 and 23-24, Herron discloses a system (probe 28) for mapping a condition of structure comprising a plurality of support members covered by a wall comprising:

a computer processor (85) having a memory; a position locating system (position sensor 30) for determining the position of a marker in a frame of reference and communicating said position to said computer processor (85); a density sensor (transducer 50) in communication with said computer processor (85); and a marker (71) associated with said density sensor (100).

Regarding claim 23, it is similar in scope with claim 14 and therefore, it is rejected for the reasons set forth for that claim. Furthermore, Acker discloses the coil 100 of each reference assembly 50 constitutes a single axis field transducer, whereas the calibration field transducers 316 of each reference assembly 50 represent a system

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of three three-axis transducers disposed at known locations with respect to one another. For example, the three calibration transducers 316B, 316B2, and 316B3 of reference assembly SOB are at known locations relative to one another (col. 8, lines 50-62).

Regarding claim 24, it is similar in scope with claim 14 and therefore, it is rejected for the reasons set forth for that claim.

Regarding claim 15-16 and 25, Acker discloses wherein said position locating system comprises a plurality of receivers (30, 100) located at known positions within said frame of reference. Acker further discloses the reference field transducers 100 and the probe field transducer 30 cooperatively define a plurality of transmitter-receiver pairs (see: col. 8, lines 21-30). In addition, Acker discloses the computer 85 then deduces the disposition of the probe field transducer 30 and thus deduces the disposition of the probe itself in the external frame of reference defined by the reference field transducers 100. As the dispositions of the reference field transducers 100 relative to one another are now known, the step of finding the disposition of the probe field transducer 30 can be performed by known techniques (col. 10, lines 62-67 and col. 11, lines 1-3).

Regarding claims 17-18 and 27, Acker discloses an ultra wideband transmitter (field transmit/receive device 80).

Regarding claim 19 and 26, Acker discloses said density sensor (50) comprises an ultrasonic transducer (reference field transducer 100)

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Regarding claims 20, Acker discloses a reference transmitter (reference field transducer 100A).

Regarding claims 21-22, Acker discloses the coil 100 of each reference assembly 50 constitutes a single axis field transducer, whereas the calibration field transducers 316 of each reference assembly 50 represent a system of three three-axis transducers disposed at known locations with respect to one another. For example, the three calibration transducers 316B, 316B2, and 316B3 of reference assembly SOB are at known locations relative to one another (see: col. 8, lines 50-62 and col. 9, lines 30-40).

Allowable Subject Matter

3. Claims 1-13 and 28-33 are allowable over the prior art of record.
4. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record taken alone and in combination does not disclose "placing the scanning device adjacent the first wall in alignment with the first support; moving the scanning device over the first wall while directing ultrasonic energy toward the first support member and detecting reflected ultrasonic energy; analyzing the reflected ultrasonic energy to determine the relative density of the first support member in relation to a known density; and recording the position of the scanning device when the reflected ultrasonic energy indicates a density different from the known density" as recited in claims 1 and 28. Furthermore, the prior art of record does not disclose "detecting support member density at a plurality of sites on a plurality of support

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members; identifying the location of each of the plurality of sites; mapping the plurality of sites onto the representation of the structure; and indicating on the representation of the structure the support member density at each of the sites as recited in claim 10.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques M. Saint-Surin whose telephone number is (571) 272-2206. The examiner can normally be reached on Mondays to Fridays between 10:30 A.M and 800 P.M..

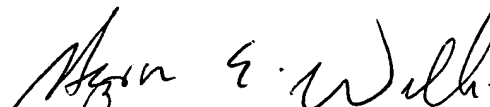
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jacques M. Saint-Surin

December 04, 2006



HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER